

**NWIRP/Grumman-October 29, 2015 Groundwater Quarterly Coordination
Meeting Agenda (in black) and Meeting Notes (in blue)**

Attendees:

Michael Ryan, DEC-Assistant Director, DER
Jim Harrington, DEC-Director, Remedial Bureau A, DER
Stan Carey, Superintendent, MWD
Paul Granger, H2M (representing MWD)
Michael Bonfis, Superintendent, BWD
Richard Humann, H2M (representing BWD)
Francis Koch, Superintendent SFWD
Gary Loesch, H2M (representing SFWD)
Catherine McCabe, EPA-Deputy Regional Administrator
Doug Garbarini, EPA-Branch Chief, NYRB
Pete Mannino, EPA-Section Chief, WNYRS
Richard Mach, OASN (EI&E)
Lora Fly, NAVEAC-Mid-Atlantic
Ed Hamon, NG ESH&M
Mike Wolfert, ARCADIS

1. **Status of efforts regarding Chapter 543 Of the Laws of 2014 – evaluation of options relative to the groundwater plume associated with the former Navy/Grumman Bethpage facility**
 - a. **Scope of work and schedule (as available).** DEC provided an overview of the requirements of the law, which include: the development of a report detailing the options of intercepting and remediating the groundwater plume emanating from the former NWIRP and NG facilities; accomplishing this goal in a timely manner so as to stop the migration of the plume before it reaches the public water supply wells; be designed to also protect the natural resources; an estimate of the cost, scope, and timetable of the project; and how DEC would enforce the law and cause the United States Navy to pay for or reimburse the costs associated with this project should it be implemented.
 - b. **Presentation of work to date.** DEC has received the draft report prepared by its contractor (HDR) that contains three options for the extraction of contaminated groundwater along the Southern State Parkway with treatment and discharge. On 10/23, DEC met with Assemblyman Saladino (9th District) and the WDs to discuss the progress of the work. During the 10/23 meeting, MWD provided DEC with a conceptual design for sending the treated water to the NG facility. In addition to the report prepared by HDR, DEC needs to address the remaining components required by the law, such as how to enforce the law and cause the United States Navy to pay for or reimburse the costs associated with this project. DEC is reviewing options for the release of the report. At the 10/23 meeting, the WDs requested that, in the interim, a draft outline of the report be provided to the WDs. The package comprising all of the components of the law is planned to be completed no sooner than January 1st.
2. **ONCT Effectiveness.** The evaluation previously conducted by NG, as required by the Order, demonstrates that the ONCT is operating as designed. NG indicated that data is plugged into the evaluation as it becomes available. NG stated that it needs approximately one month to compile new data that it is provided for interpretation and presentation. The Navy indicated that VP160

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has been completed and the data is expected to be available around the February timeframe. Drilling of VP148, VP155 and VP157 are on-going. NG indicated that at the next quarterly coordination meeting, NG can provide an update/evaluation with the new data.

3. Hot Spot Investigation

a. Plant 6 Pilot Study (Capture Zone Analysis)

- i. **Status of BWD approvals.** BWD indicated that it has provided the Navy a signed contract. However, approval has not been received from the State to perform the capture zone analysis. DEC indicated that they are working to address New York State DOH and Nassau County DOH concerns. BWD has indicated that the WD needs the water produced from the two wells (6-1 and 6-2). The parties recommended that DEC talk to Joe DeFranco and inform him that BWD is on board with the capture zone analysis and that DEC suggest that he speak with the BWD. Water could be disposed at the ~~GM78-GM38~~ retention basin. EPA indicated that they support the pilot and offered to help in any way that they can.

BWD indicated that it anticipates that Plant 6 would shut down in the spring of 2016 for construction of upgrades, with an expected down time of 18 to 24 months. Plans are currently under review by the health department. To date, comments on the plan have been minimal.

- ii. **Status of Navy contracting.** The Navy indicated that work started on November 2nd. Data loggers are in place for both the Plant 6 capture zone analysis and the outpost monitoring wells for the WDs. The Navy is working with the WDs regarding the turning of pumps on and off as part of this evaluation (attached).

b. Status of additional "Hotspot" Work. The Navy provided a power point presentation.

- i. **Work by Navy-additional delineation.** As part of this presentation, data from recently installed VPBs and wells was discussed in addition to plans for additional delineation and investigation. Navy discussed a conceptual design: 2-4 wells (900-1200 gpm), treatment near the wells to minimize risk of contaminating the soil should a failure in the piping occur, discharge still an open question with a schedule of predesign 2017, access 2018-19 and construction in 2021. There was a discussion of trying to improve on this schedule but Navy talked about their experience with GM-38 and this the scarcity of open space in the densely populated area. The presentation also discussed the status of the GM-38 hotspot and the Navy indicated that they may request shutdown in 1-2 years.
- ii. **Work by NG-status of submittals required by OU2 Consent Order.** NG provided a power point presentation (attached). As part of this presentation, NG included an overview and status for each of the plans required to be submitted pursuant to the OU2 Consent Order. They are:
 - Citizen Participation Plan – conditionally approved by DEC on 8/2015
 - ONCT Effectiveness Study – submitted in 5/2015
 - RD/RA Work Plan (Including OM&M) – submitted in 5/2014
 - GW Monitoring Plan – submitted in 5/2015 and conditionally approved by DEC in 5/2015
- iii. **Navy/NG coordination on Hotspot work.** Both the Navy and NG covered this topic in their attached presentations and noted that discussions on coordination

were continuing. NG and the Navy indicated that their last technical exchange meeting was held on August 11, 2015. Notably, Ed Hannon spoke about the evaluation of the capacity of the onsite recharge basins and plans to increase capacity by widening and clearing. Also, Grumman indicated that they are working with real estate people to site potential discharge areas.

NG stated that it does not agree with all of the points made in the Navy's 8/6/15 letter. NG has requested that these points be part of the mediation process with the Navy.

- iv. **Plans for addressing contamination not captured by 6-2.** The Navy indicates that the current conceptual design would call for the installation of two extraction wells at a depth of approximately 500 – 700 feet with a combined pumping rate of 900 to 1,200 gpm. It is expected that the wells would be installed south of ~~old country road~~ Hempstead Turnpike and west of Hicksville Road. The planned installation of VPB 148 is intended to refine the area. The Navy's schedule calls for the completion of the basis of design in 2017 and completion of the design in 2019/2020. EPA and DEC expressed an interest in shortening the projected durations. It was noted that the schedule reflected the cumbersome and difficult process of acquiring property for a treatment plant and extraction wells. EPA suggested that a coordinated effort by NG and the Navy with respect to property acquisition may yield a more effective/timely approach to property acquisition.
- c. **Progress on evaluation of disposition of treated water if well 6-2 utilized to capture mass of the hotspot.** Discharge options being considered include the use of existing retention basins, other basins in the area, Cedar Creek, the Great South Bay, and re-injection wells. NG is engaged with their real estate team and conducting an evaluation for excess real estate. NG is also evaluating its existing retention basin capacity and performing efficiency reviews. As a result, NG is implementing maintenance steps at its retention basins and expects to perform additional calculations. However, only a marginal increase in capacity is expected, which will probably be needed by NG for other site-related work.
4. **Additional discussion of potential for use of wells at BWD Plants 4,5,6 should BWD cease using them as public water supply wells.** The parties noted that there has not been additional discussion beyond the last coordination meeting.
5. **DEC radium 226 and 228 sampling.** DEC has collected water samples from each of the sampling locations, except for the WDs. DEC is waiting for access from Plainview WD and BWD. At the meeting, BWD provided DEC with verbal authorization to obtain the sample(s). DEC and BWD need to coordinate the sample collection for 4-1 and 4-2 because the wells need to run for a period of time before the sample can be collected. During the meeting, the WDs requested clarification regarding the federal MCL for radium 226 and 228. Since the meeting, EPA has determined that under the Safe Drinking Water Act, the federal MCL for radium 226 and 228 (combined) is 5 picocuries per liter. The state drinking water standard (Part 5) and the groundwater standard (TOGS 1.1.1) are the same as the federal MCL.
6. **1,4-dioxane sampling.** NG provided a summary of the 1,4-dioxane sampling results. They indicated that the OUS hotspot had levels higher concentrations of 1,4-Dioxane than beneath the plant. NG indicated that it expects to submit a request to DEC recommending that 1,4-dioxane is not included as a sampling parameter for all future sampling events. MWD indicated that it would be requesting access from the Navy and NG to collection groundwater samples for

compound specific isotope analysis (CSIA). The Navy indicated that the request should include further details regarding the sampling approach and methodology.

7. **Community outreach issues**

- **Issues (if any).** The parties agreed that changes to community outreach related to well installation seemed to be working well; similarly the modifications made to the RAB meetings also seemed to improve the effectiveness of the meetings. The parties suggested that a newsletter or similar handout is developed to discuss the non-Navy work. NG suggested a semi-annual frequency.
- **Next RAB meeting (10-29-2015).**

8. **Next quarterly coordination meeting**

- **Next meeting date (January xx, 2016).** During the meeting, January 20, 2016 was identified as the next meeting date. However, due to a conflict that was identified after the meeting, the meeting date will need to be changed.
- **New agenda topics for next meeting**
 - **Public water supply contingency program-processing of payments.** The Navy will set up a call with DCU, BWD, and the NAVY to discuss BWD's concerns with the processing of payments. The parties suggested this item be removed as an item for discussion from the next meeting agenda.

Other:

NG will follow-up with its attorneys as to whether OUS could be included as an agenda item at future coordination meetings.

Navy requested information regarding EPA's groundwater investigation at Hooker RUCO. EPA indicated that they would set up a call and include Navy and NG.

Paul Granger will reach out to his counter parts at the NY American Water and Levittown WDs to gauge their interest in participating in future meetings.

The Navy and NG will attempt to re-craft agenda items 2 and 3 for the next meeting agenda and the agenda will also be modified to identify the presenters for each agenda topic.